

**Chemeketa Community College  
Drafting Technology - CAD Program**

**Program Outcomes**

Students completing the Drafting Technology - CAD Program will demonstrate the knowledge, skills and attitudes to:

<b>1. Certificate</b>	<ol style="list-style-type: none"> <li>1. Produce accurate 2-D and 3-D drawings using CAD software.</li> </ol>
<b>2. AAS</b>	<p>In addition, upon completion of the AAS, students will:</p> <ol style="list-style-type: none"> <li>1. Demonstrate effective communication skills as a team member.</li> <li>2. Display work ethic through attendance and active participation in all class activities.</li> </ol>
<b>3. Options</b>	<p>In addition, upon completion of the following options, students will:</p> <p><b>Computer-Assisted Drafting (CAD)</b></p> <ol style="list-style-type: none"> <li>1. Produce sets of architectural drawings suitable for planning division approval.</li> <li>2. Produce sets of structural drawings to industry standards.</li> <li>3. Produce sets of civil drawings including streets, lots, and utilities for a subdivision suitable for planning division approval.</li> <li>4. Draft sets of mechanical drawings including detail and assembly drawings of related parts.</li> </ol> <p><b>Mechanical Design</b></p> <ol style="list-style-type: none"> <li>1. Apply parametric analysis tools to design mechanical components and assemblies. Illustrate and animate mechanical assemblies.</li> <li>2. Calculate power requirements and design or select transmission components for mechanical systems.</li> <li>3. Analyze external and internal force effects on mechanical and structural components.</li> <li>4. Select materials for mechanical components based on application and manufacture process.</li> </ol>

<b>4. Information Sources</b>	<ol style="list-style-type: none"><li>1. Drafting Technology - CAD Advisory Committee</li><li>2. Manufacturing Engineering Technology Advisory Committee</li><li>3. American Society of Mechanical Engineers</li><li>4. National Occupational Skill Standards for CADD (Computer-Aided Drafting and Design)</li><li>5. American National Standards Institute</li><li>6. American Institute of Steel Construction</li><li>7. National Tooling and Machining Association</li><li>8. Graduate Surveys</li><li>9. Employers</li></ol>
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